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CLAIMS

What is claimed is:

1   1.   A method of determining a client ID comprising:

2   receiving a request from a first user terminal; and

3   extracting a client ID from the request, wherein the client ID includes the

4   client ID for the first user terminal.

1   2.   The method of claim 1 wherein the request is received in a front-end

2   processor.

1   3.   The method of claim 1 wherein the request includes a WTLS handshake and

2   wherein extracting a client ID for the first user terminal includes:

3   extracting a session ID from the WTLS handshake; and

4   determining the client ID from the session ID.

1   4.   The method of claim 3 wherein the WTLS handshake includes a WTLS full

2   handshake.

1   5.   The method of claim 3 wherein the WTLS handshake includes a WTLS

2   abbreviated handshake.

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1   6.   The method of claim 1 wherein the request includes a WSP connect and

2   wherein extracting a client ID for the first user terminal includes extracting the client

3   ID from the WSP connect.

1   7.   The method of claim 1 wherein the request includes a WSP resume and

2   wherein extracting a client ID for the first user terminal includes extracting the client

3   ID from the WSP resume.

1   8.   A method of balancing a data load on a network comprising:

2   receiving a request from a client;

3   determining a first source address and a first source port from the request;

4   remapping the first source address of the request to a front-end processor

5   source address;

6   remapping the first source port of the request to an front-end processor

7   source port; and

8   sending the remapped request to an origin server.

1   9.   The method of claim 8, wherein determining a first source address and a first

2   source port from the request includes:

3   receiving a WSP connect; and

4   extracting a client ID from the WSP connect.

1   10.   The method of claim 8, wherein determining a first source address and a first

2   source port from the request includes:

3   receiving a WSP resume; and

4   extracting a client ID from the WSP resume.

1   11.   The method of claim 8, wherein determining a first source address and a first

2   source port from the request includes:

3   receiving a abbreviated WTLS handshake;

4   extracting a session ID from the abbreviated WTLS handshake; and

5   determining the client ID from the session ID.

1   12.   The method of claim 8, wherein determining a first source address and a first

2   source port from the request includes:

3   receiving a full WTLS handshake;

4   extracting a session ID from the full WTLS handshake; and

5   determining the client ID from the session ID.

1   13.   The method of claim 8, wherein remapping the first source address of the

2   request to a front-end processor source address includes:

3   storing the first source address and the corresponding front-end processor

4   source address; and

5   storing the first source port and the corresponding front-end processor source

6   port.

1   14.   The method of claim 13, wherein storing includes storing the corresponding

2   source addresses and the corresponding source ports in a table.

1   15.   The method of claim 8, wherein:

2   if the request includes at least one of a group consisting of a WSP connect, a

3   WSP resume, and a WTLS handshake, then:

4   assigning the client to a selected agent of a plurality of agents, such that a

5   data load is substantially balanced across the plurality of agents.

1   16.   The method of claim 8, further comprising:

2   receiving a response from the origin server, wherein the response is

3   responding to the remapped request and wherein the response is received in the

4   front-end processor;

5   remapping the origin server response source address to the front-end

6   processor source address;

7   remapping the origin server response source port to the front-end processor

8   source port; and

9   sending the remapped response to the client.

1   17.   The method of claim 8, wherein remapping the first source address of the

2   request to the front-end processor source address includes remapping the first source

3   address of the request to a selected agent source address wherein the selected agent

4   is one of a plurality of agents; and

5   wherein remapping the first source port of the request to the front-end

6   processor source port includes remapping the first source port of the request to the

7   selected agent source port.

1   18.   The method of claim 8, wherein the network includes a wireless network.

1   19.   The method of claim 8, wherein the client is a mobile user terminal.

1   20.   A method of assigning an agent comprising:

2   receiving a response from an origin server to a request from a first mobile

3   user terminal, wherein the first mobile user terminal and the origin server are

4   coupled by a circuit switched network; and

5   confirming an IP address for the first mobile user terminal including:

6   determining the client ID of the first mobile user terminal; and

7   comparing a current IP address assigned to the first mobile user

8   terminal to the destination address of the response.

1   21.   The method of claim 20 further comprising:

2   updating the destination address of the response if the destination address of

3   the response is not the same as the current IP address assigned to the first mobile

4   user terminal.

1   22.   The method of claim 20 wherein the IP address is confirmed by a front-end

2   processor.

1   23.   The method of claim 20 wherein determining the client ID of the first mobile

2   user terminal includes extracting the client ID from the response.

1   24.   The method of claim 23 wherein extracting the client ID includes extracting

2   the client ID from at least one of a group consisting of a WSP connect, a WSP

3   resume, and a WTLS handshake.

1   25. A system for determining a client ID comprising

2   a processor;

3   a storage facility coupled to the processor and containing instructions

4   executable by the processor which configure the processing system to

5   receive a request from a first user terminal; and

6   extract a client ID from the request, wherein the client ID includes the

7   client ID for the first user terminal; and

8   a network coupled to the processor.

1   26.   The system of claim 25 further comprising:

2   a front-end processor and wherein the request is received in the front-end

3   processor.

1 27. The system of claim 25 wherein the request includes at least one of a group

2 consisting of a WTLS handshake, a WSP connect, and a WSP resume.

1 28. A system for balancing a data load on a network comprising

2   a processor;

3   a network coupled to the processor;

4   a front-end processor coupled to the network;

5   a client coupled to the network; and

6   a storage facility coupled to the processor and containing instructions

7 executable by the processor which configure the processing system to:

8   receive a request from the client;

9   determine a first source address and a first source port from the

10   request;

11   remap the first source address of the request to a front-end processor

12   source address;

13   remap the first source port of the request to an front-end processor

14   source port; and

15   send the remapped request to an origin server.

1 29. The system of claim 28 wherein the determine a first source address and a

2 first source port from the request includes:

3   receiving at least one of a group consisting of a WTLS handshake, a WSP

4   connect, and a WSP resume.

1   30.   The system of claim 28 wherein the determine a first source address and a

2   first source port from the request includes:

3   receiving at least one of a group consisting of a WTLS handshake, a WSP

4   connect, and a WSP resume.

1   31.   The system of claim 28 wherein the remap the first source address of the

2   request to a front-end processor source address includes:

3   storing the first source address and the corresponding front-end processor

4   source address; and

5   storing the first source port and the corresponding front-end processor source

6   port.

1   32.   The system of claim 28 wherein the storage facility coupled to the processor

2   and further contains instructions executable by the processor which configure the

3   processing system to:

4   receive a response from the origin server, wherein the response is responding

5   to the remapped request and wherein the response is received in the front-end

6   processor;

7   remap the origin server response source address to the front-end processor

8   source address;

9   remap the origin server response source port to the front-end processor

10   source port; and

11   send the remapped response to the client.

1   33.   The system of claim 28 wherein the remap the first source address of the

2   request to a front-end processor source address includes remapping the first source

3   address of the request to a selected agent source address wherein the selected agent

4   is one of a plurality of agents; and

5   wherein remapping the first source port of the request to the front-end

6   processor source port includes remapping the first source port of the request to the

7   selected agent source port.

1   34.   The system of claim 28, wherein the network includes a wireless network.

1   35.   The system of claim 28, wherein the client is a mobile user terminal.

1   36.   A system for assigning an agent comprising:

2   a processor;

3   a network coupled to the processor;

4   a front-end processor coupled to the network;

5   a client coupled to the network; and

6   a storage facility coupled to the processor and containing instructions

7   executable by the processor which configure the processing system to

8   receive a response from an origin server to a request from a first

9   mobile user terminal, wherein the first mobile user terminal and the origin

10   server are coupled by a circuit switched network; and

11   confirm an IP address for the first mobile user terminal including:

12   determine the client ID of the first mobile user terminal; and

13   compare a current IP address assigned to the first mobile user

14   terminal to the destination address of the response.

1   37.   The system of claim 36 wherein the storage facility coupled to the processor

2   and further contains instructions executable by the processor which configure the

3   processing system to:

4   update the destination address of the response if the destination address of

5   the response is not the same as the current IP address assigned to the first mobile

6   user terminal.

1   38.   The system of claim 36 wherein the IP address is confirmed by the front-end

2   processor.

1   39.   The system of claim 36 wherein the determine the client ID of the first

2   mobile user terminal includes extracting the client ID from the response.

1   40.   The system of claim 39 wherein extracting the client ID includes extracting

2   the client ID from at least one of a group consisting of a WSP connect, a WSP

3   resume, and a WTLS handshake.

1   41.   A system for of determining a client ID comprising:

2   a means for receiving a request from a first user terminal; and

3   a means for extracting a client ID from the request, wherein the client ID

4   includes the client ID for the first user terminal.

1   42.   A system for balancing a data load on a network comprising:

2   a means for receiving a request from a client;

3   a means for determining a first source address and a first source port from the

4   request;

5   a means for remapping the first source address of the request to a front-end

6   processor source address;

7   a means for remapping the first source port of the request to an front-end

8   processor source port; and

9   a means for sending the remapped request to an origin server.

1   43.   A system for assigning an agent comprising:

2   a means for receiving a response from an origin server to a request from a

3   first mobile user terminal, wherein the first mobile user terminal and the origin

4   server are coupled by a circuit switched network; and

5   a means for confirming an IP address for the first mobile user terminal

6   including:

7   a means for determining the client ID of the first mobile user

8   terminal; and

9   a means for comparing a current IP address assigned to the first

10 mobile user terminal to the destination address of the response.